

SECTION 1 - Identification of the Material and Supplier

Product Name:	Hytec Bio 46
Product Use:	Biodegradable Hydraulic oil
Supplier :	Lubricants NZ LTD 22 Marphona Crescent Takanini 2105 NEW ZEALAND Phone: (09) 640 0004 Fax: (09) 266 4004
	
Emergency Number:	0800 353 645
Chemical nature:	Synthetic vegetable oil based product.
Issue Date:	December 22 and is valid for 5 years from this date

SECTION 2 – Hazards Identification

NZ Regulatory Nature:	Not classified as hazardous under applicable New Zealand regulations.
Physical/Chemical Nature:	Not classified as hazardous.
Health Hazards:	S25. Avoid contact with eyes
Environmental Hazards:	Not classified as hazardous.

Emergency Overview

Physical Description & Colour:	Clear to yellow coloured liquid
Odour:	Characteristic odour.
Major Health Hazards:	Contains sensitiser(s). May produce an allergic reaction.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.

Long Term Exposure: Oil blisters may develop following prolonged and repeated exposure through contact with stained clothing.

Eye Contact

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Short Term Exposure:

This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed

Long Term Exposure:

No data for health effects associated with long term eye exposure

Ingestion:**Short Term Exposure:**

Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Long Term Exposure:

Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

SECTION 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc %	TWA (mg/m ³)	STEL (mg/m ³)
Vegetable oil and non hazardous oils.	Various	60-100	N A	N A
Non hazardous additives	Various	0-10	N A	N A

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 and is available at all times. Have this MSDS with you when you call.

Inhalation:

First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact:

Gently blot away excess liquid. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact:

Quickly and gently blot material from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

Ingestion:

If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

SECTION 5 - Fire Fighting Measures

Fire and Explosion Hazards:

The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may

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accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Fire decomposition products from this product are likely to be irritating if inhaled.

Extinguishing Media:	Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Fire Fighting:	If a significant quantity of this product is involved in a fire, call the fire brigade.
Flash point:	>180°C.
Autoignition temperature:	>250°C. This temperature may be significantly lower under particular conditions (slow oxidation on finely divided materials)
Flammability Class:	C2

SECTION 6 - Accidental Release Measures

Accidental release:	<p>Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include nitrile, neoprene. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).</p> <p>Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Can be slippery on floors, especially when wet. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.</p>
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SECTION 7 – Handling and Storage

Handling:	<p>Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
Storage:	<p>Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.</p>

SECTION 8 – Exposure Controls and Personal Protection

Respiratory equipment:	NZS 1715
Protective Gloves:	NZS 2161
Occupational Protective Clothing:	NZS 4501

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Industrial Eye Protection:	NZS 1337
Occupational Footwear:	Protective NZS 2210
Other:	No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Ventilation:	This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.
Eye Protection:	Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.
Skin Protection:	The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.
Protective Material Types:	We suggest that protective clothing be made from the following materials: nitrile, neoprene.
Respirator:	Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Standard mentioned above.

SECTION 9 – Physical and Chemical Properties

Physical Description & colour:	Clear to yellow coloured liquid
Odour:	Characteristic odour.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatility:	Nil at 100°C
Vapour Pressure:	Nil at normal ambient temperatures
Vapour Density:	No data.
Specific Gravity:	0.892 at 15°C
Water Solubility:	Negligible at 20°C
pH:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Viscosity:	46 mm ² /s @ 40°C
Autoignition temp:	No data

SECTION 10 - Stability and Reactivity

Reactivity:	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid:	This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry.
Incompatibilities:	Strong oxidising agents.
Fire Decomposition:	Combustion forms carbon dioxide, and if incomplete, carbon monoxide, various hydrocarbons, aldehydes and smoke. Water is also formed. Small quantities of oxides of nitrogen, sulfur, zinc and phosphorus. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation:	This product will not undergo polymerisation reactions.

SECTION 11 – Toxicological Information

Local Effects:	
Target Organs:	There is no data indicating any particular target organs. Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact

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	with stained clothing.
Sensitization	Not classified as allergenic. Toxicological checks with similar products have not revealed any skin sensitivity aggravation. Contains a sensitising substance; may cause an allergic reaction.
Classification of Hazardous Ingredients	No ingredient mentioned in the HSNO Database is present in this product at hazardous concentrations.

SECTION 12 - Ecological Information

Mobility:	
Air:	There is a slow loss by evaporation.
Soil:	Given its physical and chemical characteristics, the product has no soil mobility.
Water:	The product is insoluble; it spreads on the surface of the water.
Persistence and degradability:	No experimental information about the finished product. However the "mineral oil" fraction of the new product is intrinsically biodegradable.
Zinc alkyl dithiophosphate:	
EC50 Daphnia magna:	(48h) 1 - 1.5 mg/L
LC50 Pimephales promelas	(static) (96h) 1.0-5.0 mg/L
LC50 Pimephales promelas	(semi-static) (96h) 10.0-35.0 mg/L

SECTION 13 - Disposal Considerations

Disposal:	This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable, consider controlled incineration, or landfill.
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SECTION 14 - Transport Information

HSNO Code:	This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.
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SECTION 15 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.